

NEWS

Community newsletter: Subjective perception, plus autism's double empathy problem

BY CHELSEY B. COOMBS

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Hi there, and welcome to the *Spectrum* community newsletter! I'm your host, **Chelsey B. Coombs**, *Spectrum's* engagement editor. I hope you had a great holiday break, but now that we're all back to work, let's jump in.

Our first tweet thread this week comes from **Yuki Kamitani**, a neuroscientist and professor of informatics at Kyoto University. His lab just posted a preprint in *bioRxiv* called "**Attentionally modulated subjective images reconstructed from brain activity.**"

<https://twitter.com/ykamit/status/1343812714963980297>

Follow the link to see the videos and gifs the team created. They used functional magnetic resonance imaging data and 'deep image reconstruction' to try to recreate what study participants see when presented with a visual stimulus. This has been done before, but what makes their study different is that they showed overlapping images to participants and asked them to pay attention to only one. They found that changing what a person pays attention to actually alters the person's reconstruction of the superimposed images, showing that subjective perception affects what the brain sees.

Neuroscientist **Matt Wall** called the work "very cool."

https://twitter.com/m_wall/status/1343841292141424641

Our next featured post comes from **Sarah Cassidy**, assistant professor of psychology at the University of Nottingham in the United Kingdom.

https://twitter.com/Sarah_NottsUni/status/1346060696816152576

Her research group has published a new study in the *British Journal of Developmental Psychology* that is attracting a lot of attention from both autism researchers and autistic advocates. It's called "**Autism and the double empathy problem: Implications for development and mental health.**"

The team found that non-autistic people's misperceptions about autistic people "influences the perceptions and behaviour of autistic people such that they become increasingly separate and indeed isolated from mainstream society." This, in turn, they write, "jeopardizes their mental health and prevents autistic people from developing to full potential."

Noah Sasson, associate professor of behavioral and brain sciences at the University of Texas at Dallas, called it a "very important paper."

<https://twitter.com/Noahsasson/status/1346085460158853123>

Neil Kenny, assistant professor of inclusive and special education at Dublin City University in Ireland, noted, "There are obvious implications for education, particularly in the context of whole school wellbeing and inclusion."

<https://twitter.com/NeilKenny0/status/1346075486053670912>

Lily Levy, a child and adolescent mental health services clinician in the U.K., added that the study is "just another reason why doing research that matters to autistic people matters."

<https://twitter.com/lilyhannahlevy/status/1346121994119606272>

Georgia Pavlopoulou, a senior teaching fellow at University College London, tweeted, "Something we see in clinical practice and hear a lot in my small scale projects (importance of social determinants)- good to see this published by authorities in the field of mental health."
<https://twitter.com/JoPavlopoulou/status/1346062200574767105>

Pavlopoulou also published a new study in *Frontiers in Psychology*: "**A good night's sleep: Learning about sleep from autistic adolescents' personal accounts.**"

<https://twitter.com/JoPavlopoulou/status/1343305829269860355>

Autism consultant and specialist teacher **Trudi Rainsberry** hailed the study's "fabulous collaborative approach."

<https://twitter.com/RainsT46/status/1343636775600873472>

Speech and language therapist **Theresa Redmond** called it "an interesting but also very moving piece of research."

This is an interesting but also very moving piece of research. It shouldn't be so surprising but I've not read anything quite like it.... <https://t.co/9YV1FWIF0G>

— Theresa Redmond (@TheresaJRedmond) **December 27, 2020**

Thanks for reading this week's *Spectrum* community newsletter! If you have any suggestions for interesting social posts you saw in the autism research sphere this week, feel free to send an email to me at chelsey@spectrumnews.org. See you next Sunday!